Material Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) Marine Adhesive Sealant Fast Cure 5200 - White; PN 06520
MANUFACTURER: 3M
DIVISION: Marine Trades Project

ADDRESS: 3M Center
St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 03/28/2003
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Product Use:
Specific Use: Adhesive Sealant for fiberglass and wood.

SECTION 2: INGREDIENTS

Ingredient	C.A.S. No.	% by Wt
URETHANE PREPOLYMER	51447-37-1	40 - 70
TITANIUM DIOXIDE	13463-67-7	10 - 30
ZINC OXIDE	1314-13-2	1 - 5
DIETHYLENE GLYCOL MONOETHYL ETHER ACETATE	112-15-2	1 - 5
SYNTHETIC AMORPHOUS SILICA, FUMED, CRYSTALLINE FREE	112945-52-5	1 - 5
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	101-68-8	< 2
SILICA	7631-86-9	< 2
ALKYL ISOCYANATE SILANE	85702-90-5	< 2
ACETONE	67-64-1	< 1
HEPTANE	142-82-5	< 1
DIPHENYLMETHANE-2,4'-DIISOCYANATE	5873-54-1	< 0.2
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	26447-40-5	< 0.2
N-BUTYL ACETATE	123-86-4	< 0.2
XYLENE	1330-20-7	< 0.2
HEXAMETHYLENE DIISOCYANATE	822-06-0	< 0.1

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Paste
Odor, Color, Grade: White thixotropic paste, slight odor
General Physical Form: Solid
Immediate health, physical, and environmental hazards: May cause allergic skin reaction. May cause allergic respiratory reaction. P,P'-METHYLENEBIS(PHENYL ISOCYANATE) (101-68-8): Persons previously sensitized to an isocyanate, or persons with a preexisting, non-specific bronchial hyperreactivity can respond to concentrations below the TLV. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath, or asthma attack, could be immediate or delayed (up to several hours after exposure).

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:
Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

Dust created by cutting, grinding, sanding, or machining may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Prolonged or repeated exposure may cause:
Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Inhalation:
Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Prolonged or repeated exposure may cause:
Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

Ingestion:
Ingestion may cause:
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.

Target Organ Effects:
Persons previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

3.3 POTENTIAL ENVIRONMENTAL EFFECTS

Completed the environmental section 11-19-01 RMR-ESA.///

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of cold water for at least 15 minutes. If signs/symptoms develop, get medical attention. Wash contaminated clothing and clean shoes before reuse.

Inhalation: Remove person to fresh air. If signs/symptoms persist, get medical attention.

If Swallowed: Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. If signs/symptoms develop, get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	*No Data Available*
Flash Point	*Not Applicable*
Flammable Limits - LEL	*Not Applicable*
Flammable Limits - UEL	*Not Applicable*

5.2 EXTINGUISHING MEDIA

Material will not burn.

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

Unusual Fire and Explosion Hazards: Not applicable.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. Avoid contact with water. Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Or pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. Place in a container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. Collect as much of the spilled material as possible. Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not breathe vapors. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep out of the reach of children. Avoid eye contact with dust or airborne particles. Do not use heat to aid in the removal of 5200 Marine Sealant. The application of heat may generate levels of P,P'-METHYLENEBIS(PHENYL ISOCYANTE) in excess of the TLV.

7.2 STORAGE

Store in a cool place. Store away from heat. Store out of direct sunlight. Keep container in well-ventilated area. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Do not use in a confined area or areas with little or no air movement. Provide appropriate local exhaust for cutting, grinding, sanding or machining. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control dust, fume, or airborne particles. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact.
The following eye protection(s) are recommended: Safety Glasses with side shields.

8.2.2 Skin Protection

Avoid prolonged or repeated skin contact. Do not use heat to aid in the removal of 5200 Marine Sealant. The application of heat may generate levels of P,P'-METHYLENEBIS(PHENYL ISOCYANATE)in excess of the TLV.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.
Gloves made from the following material(s) are recommended: Butyl Rubber, Nitrile Rubber.

8.2.3 Respiratory Protection

Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not breathe vapors.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

Ingredient	Authority	Type	Limit	Additional Information
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	ACGIH	TWA	0.005 ppm	
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)	OSHA	CEIL	0.02 ppm	Table Z-1
ACETONE	ACGIH	TWA	500 ppm	
ACETONE	ACGIH	STEL	750 ppm	
ACETONE	OSHA	TWA, Vacated	750 ppm	
ACETONE	OSHA	TWA	1000 ppm	Table Z-1
ACETONE	OSHA	STEL, Vacated	1000 ppm	
CADMIUM DUST	OSHA	TWA - as dust	0.2 mg/m3	Table Z-2
CADMIUM DUST	OSHA	CEIL - as dust	0.6 mg/m3	Table Z-2
FREE ISOCYANATES	3M	TWA	0.005 ppm	
FREE ISOCYANATES	3M	STEL	0.02 ppm	
HEPTANE	ACGIH	TWA	400 ppm	
HEPTANE	ACGIH	STEL	500 ppm	
HEPTANE	OSHA	TWA, Vacated	400 ppm	
HEPTANE	OSHA	TWA	500 ppm	Table Z-1
HEPTANE	OSHA	STEL, Vacated	500 ppm	
HEXAMETHYLENE DIISOCYANATE	ACGIH	TWA	0.005 ppm	
N-BUTYL ACETATE	ACGIH	TWA	150 ppm	
N-BUTYL ACETATE	ACGIH	STEL	200 ppm	
N-BUTYL ACETATE	OSHA	TWA	150 ppm	Table Z-1A
N-BUTYL ACETATE	OSHA	STEL	200 ppm	Table Z-1A
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	ACGIH	TWA	0.005 ppm	
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)	OSHA	CEIL	0.02 ppm	Table Z-1
SILICA	CMRG	TWA - specific form	3 mg/m3	as respirable dust
TIN, ORGANIC COMPOUNDS	ACGIH	TWA - specific form	0.1 mg/m3	as Sn; Skin Notation;Table A4
TIN, ORGANIC COMPOUNDS	ACGIH	STEL - specific form	0.2 mg/m3	as Sn; Skin Notation*
TIN, ORGANIC COMPOUNDS	OSHA	TWA - specific form	0.1 mg/m3	as Sn; Skin Notation;Table Z-1A
TITANIUM DIOXIDE	ACGIH	TWA	10 mg/m3	Table A4
TITANIUM DIOXIDE	CMRG	TWA - specific form	5 mg/m3	as respirable dust
TITANIUM DIOXIDE	OSHA	TWA, Vacated - as dust	10 mg/m3	
TITANIUM DIOXIDE	OSHA	TWA - as total dust	15 mg/m3	Table Z-1
XYLENE	ACGIH	TWA	100 ppm	Table A4
XYLENE	ACGIH	STEL	150 ppm	Table A4
XYLENE	OSHA	TWA	100 ppm	Table Z-1A
XYLENE	OSHA	STEL	150 ppm	Table Z-1A
ZINC OXIDE	ACGIH	TWA - as fume	5 mg/m3	

ZINC OXIDE	ACGIH	STEL - as fume	10 mg/m3	
ZINC OXIDE	ACGIH	TWA - as dust	10 mg/m3	
ZINC OXIDE	OSHA	TWA - as fume	5 mg/m3	Table Z-1
ZINC OXIDE	OSHA	TWA - respirable	5 mg/m3	Table Z-1
ZINC OXIDE	OSHA	STEL, Vacated - as fume	10 mg/m3	
ZINC OXIDE	OSHA	TWA, Vacated - as dust	10 mg/m3	
ZINC OXIDE	OSHA	TWA - as total dust	15 mg/m3	Table Z-1

* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

VAC Vacated PEL:Vacated Permissible Exposure Limits [PEL] are enforced as the OSHA PEL in some states. Check with your local regulatory agency.

SOURCE OF EXPOSURE LIMIT DATA:
ACGIH: American Conference of Governmental Industrial Hygienists
CMRG: Chemical Manufacturer Recommended Guideline
OSHA: Occupational Safety and Health Administration
AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Paste
Odor, Color, Grade:	White thixotropic paste, slight odor
General Physical Form:	Solid
Autoignition temperature	*No Data Available*
Flash Point	*Not Applicable*
Flammable Limits - LEL	*Not Applicable*
Flammable Limits - UEL	*Not Applicable*
Boiling point	*Not Applicable*
Vapor Density	*No Data Available*
Vapor Pressure	*No Data Available*
Specific Gravity	1.3 [*Ref Std:* WATER=1]
pH	*Not Applicable*
Melting point	*Not Applicable*
Solubility in Water	Nil
Evaporation rate	*No Data Available*
Volatile Organic Compounds	*No Data Available*
Percent volatile	*No Data Available*
VOC Less H2O & Exempt Solvents	*No Data Available*
Viscosity	100000 - 500000 centipoise

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Amines; Alcohols; Water
Additional Information: Reaction with water, alcohols and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance	Condition
Isocyanates	Not Specified
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Hydrogen Cyanide	Not Specified
Oxides of Nitrogen	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Cure (harden, set, or react) the product according to product instructions.
Dispose of completely cured (or polymerized) wastes in a sanitary landfill.
Dispose of waste product in a sanitary landfill. Incinerate in a permitted hazardous waste incinerator in the presence of a combustible material. As a disposal alternative, incinerate uncured product in an industrial or commercial incinerator in the presence of a combustible material.
As a disposal alternative, incinerate uncured product in an industrial or commercial incinerator. As a disposal alternative, incinerate in

an industrial or commercial facility in the presence of a combustible material.

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14:TRANSPORT INFORMATION

ID Number(s):
60-9800-4557-3, 60-9800-4558-1, 60-9800-4562-3, 60-9801-0557-5, FS-9100-3615-1, FS-9100-3648-2, LB-T000-0007-0

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:
Fire Hazard - No Pressure Hazard - No Reactivity Hazard - Yes Immediate Hazard - Yes Delayed Hazard - No

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
ZINC OXIDE (ZINC COMPOUNDS)	1314-13-2	1 - 5
P,P'-METHYLENEBIS(PHENYL ISOCYANATE) (Diisocyanates (EPCRA 313))	101-68-8	< 2
DIETHYLENE GLYCOL MONOETHYL ETHER ACETATE (GLYCOL ETHERS)	112-15-2	1 - 5
HEXAMETHYLENE DIISOCYANATE (Diisocyanates (EPCRA 313))	822-06-0	< 0.1

This material contains a chemical which requires export notification under TSCA Section 12[b]:

Ingredient (Category if applicable)	C.A.S. No	Regulation	Status
N-BUTYL ACETATE	123-86-4	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable
ACETONE	67-64-1	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable

STATE REGULATIONS

Contact 3M for more information.

CHEMICAL INVENTORIES

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

WHMIS: Hazardous

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 1 **Flammability:** 0 **Reactivity:** 1 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision Changes:
Copyright was modified.
Section 8: Engineering controls information was modified.
Section 14: ID Number(s) was modified.

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